Copyright Notice:

No part of this installation guide may be reproduced, transcribed, transmitted, or translated in any language, in any form or by any means, except duplication of documentation by the purchaser for backup purpose, without written consent of ASRock Inc.
Products and corporate names appearing in this guide may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

Disclaimer:

Specifications and information contained in this guide are furnished for informational use only and subject to change without notice, and should not be constructed as a commitment by ASRock. ASRock assumes no responsibility for any errors or omissions that may appear in this guide.
With respect to the contents of this guide, ASRock does not provide warranty of any kind, either expressed or implied, including but not limited to the implied warranties or conditions of merchantability or fitness for a particular purpose. In no event shall ASRock, its directors, officers, employees, or agents be liable for any indirect, special, incidental, or consequential damages (including damages for loss of profits, loss of business, loss of data, interruption of business and the like), even if ASRock has been advised of the possibility of such damages arising from any defect or error in the guide or product.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

CALIFORNIA, USA ONLY

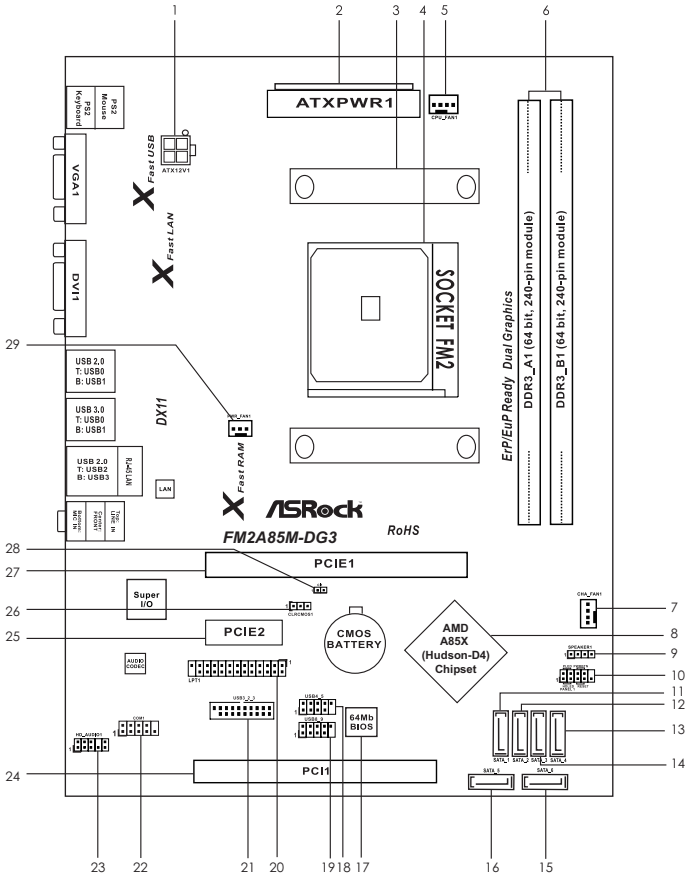
The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.
"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

ASRock Website: http://www.asrock.com

Published March 2013
Copyright©2013 ASRock INC. All rights reserved.

English

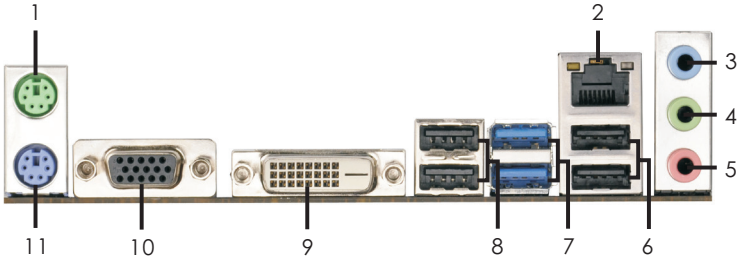
Motherboard Layout



1	ATX 12V Power Connector (ATX12V1)	15	SATA3 Connector (SATA_6)
2	ATX Power Connector (ATXPWR1)	16	SATA3 Connector (SATA_5)
3	CPU Heatsink Retention Module	17	SPI Flash Memory (64Mb)
4	CPU Socket	18	USB 2.0 Header (USB4_5)
5	CPU Fan Connector (CPU_FAN1)	19	USB 2.0 Header (USB8_9)
6	2 x 240-pin DDR3 DIMM Slots (Dual Channel: DDR3_A1, DDR3_B1)	20	Print Port Header (LPT1)
		21	USB 3.0 Header (USB3_2_3)
7	Chassis Fan Connector (CHA_FAN1)	22	COM Port Header (COM1)
8	Southbridge Controller	23	Front Panel Audio Header (HD_AUDIO1)
9	Chassis Speaker Header (SPEAKER1)	24	PCI Slot (PCI1)
10	System Panel Header (PANEL1)	25	PCI Express 2.0 x1 Slot (PCIE2)
11	SATA3 Connector (SATA_1)	26	Clear CMOS Jumper (CLRCMOS1)
12	SATA3 Connector (SATA_2)	27	PCI Express 2.0 x16 Slot (PCIE1)
13	SATA3 Connector (SATA_4)	28	Chassis Intrusion Header (CI1)
14	SATA3 Connector (SATA_3)	29	Power Fan Connector (PWR_FAN1)

English

I/O Panel



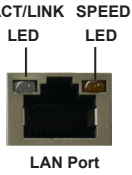
1	PS/2 Mouse Port (Green)	7	USB 3.0 Ports (USB3_01)
* 2	LAN RJ-45 Port	*** 8	USB 2.0 Ports (USB01)
3	Line In (Light Blue)	9	DVI-D Port (DVI1)
** 4	Front Speaker (Lime)	10	D-Sub Port (VGA1)
5	Microphone (Pink)	11	PS/2 Keyboard Port (Purple)
*** 6	USB 2.0 Ports (USB23)		

* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

LAN Port LED Indications

Activity/Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED	
Status	Description
Off	10Mbps connection
Orange	100Mbps connection
Green	1Gbps connection



** To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. Please refer to below steps for the software setting of Multi-Streaming. After restarting your computer, please double-click “Realtek HD Audio Manager” on the system tray. Set “Speaker Configuration” to “Quadraphonic” or “Stereo”. Click “Device advanced settings”, choose “Make front and rear output devices playbacks two different audio streams simultaneously”, and click “ok”. Then reboot your system.

*** It is recommended to install the USB Keyboard/Mouse cable to USB 2.0 ports (USB01 or USB23) instead of USB 3.0 ports.

English

1. Introduction

Thank you for purchasing ASRock ***FM2A85M-DG3*** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

This Quick Installation Guide contains introduction of the motherboard and step-by-step installation guide. More detailed information of the motherboard can be found in the user manual presented in the Support CD.

Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website http://www.asrock.com

If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.
www.asrock.com/support/index.asp

1.1 Package Contents

ASRock ***FM2A85M-DG3*** Motherboard (Micro ATX Form Factor)
ASRock ***FM2A85M-DG3*** Quick Installation Guide
ASRock ***FM2A85M-DG3*** Support CD
2 x Serial ATA (SATA) Data Cables (Optional)
1 x I/O Panel Shield

ASRock Reminds You...

To get better performance in Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64 bit, it is recommended to set the BIOS option in Storage Configuration to AHCI mode.

English

1.2 Specifications

Platform	- Micro ATX Form Factor - All Solid Capacitor design
CPU	- Support for Socket FM2 100W processors - Supports AMD's Cool 'n' Quiet™ Technology - UMI-Link GEN2
Chipset	- AMD A85X (Hudson-D4)
Memory	- Dual Channel DDR3 Memory Technology - 2 x DDR3 DIMM slots - Support DDR3 1866/1600/1333/1066 non-ECC, un-buffered memory (see **CAUTION 1**) - Max. capacity of system memory: 32GB (see **CAUTION 2**) - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2 - Supports AMD Memory Profile (AMP)
Expansion Slot	- 1 x PCI Express 2.0 x16 slot (PCIE1 @ x16 mode) - 1 x PCI Express 2.0 x1 slot - 1 x PCI slot - Supports AMD Dual Graphics (see **CAUTION 3**)
Graphics	- Integrated AMD Radeon HD 7000 series graphics in A-series APU - DirectX 11, Pixel Shader 5.0 - Max. shared memory 2GB - Dual VGA Output: support DVI and D-Sub ports by independent display controllers - Supports Dual-link DVI with max. resolution up to 2560x1600 @ 75Hz - Supports D-Sub with max. resolution up to 1920x1600 @ 60Hz - Supports AMD Steady Video™ 2.0: New video post processing capability for automatic jutter reduction on home/online video - Supports HDCP function with DVI port - Supports Full HD 1080p Blu-ray (BD) playback with DVI port
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Supports Wake-On-LAN - Supports LAN Cable Detection - Supports Energy Efficient Ethernet 802.3az - Supports PXE

English

Rear Panel I/O	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x D-Sub Port - 1 x DVI-D Port - 4 x USB 2.0 Ports - 2 x USB 3.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in / Front Speaker / Microphone
Storage	- 6 x SATA3 6.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 5 and RAID 10), NCQ, AHCI and “Hot Plug” functions
Connector	- 1 x Print port header - 1 x COM port header - 1 x Chassis Intrusion header - 1 x CPU Fan connector (4-pin) - 1 x Chassis Fan connector (4-pin) - 1 x Power Fan connector (3-pin) - 1 x 24 pin ATX power connector - 1 x 4 pin 12V power connector - 1 x Front panel audio connector - 2 x USB 2.0 headers (support 4 USB 2.0 ports) - 1 x USB 3.0 header (supports 2 USB 3.0 ports)
BIOS Feature	- 64Mb AMI UEFI Legal BIOS with GUI support - Supports “Plug and Play” - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - DRAM, VDDP, VDDR, SB Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser and Toolbar
Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, Vcore - CASE OPEN detection - Voltage Monitoring: +12V, +5V, +3.3V, Vcore

OS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / / Vista™ 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)

* For detailed product information, please visit our website: http://www.asrock.com

WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using third-party overclocking tools. Overclocking may affect your system's stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

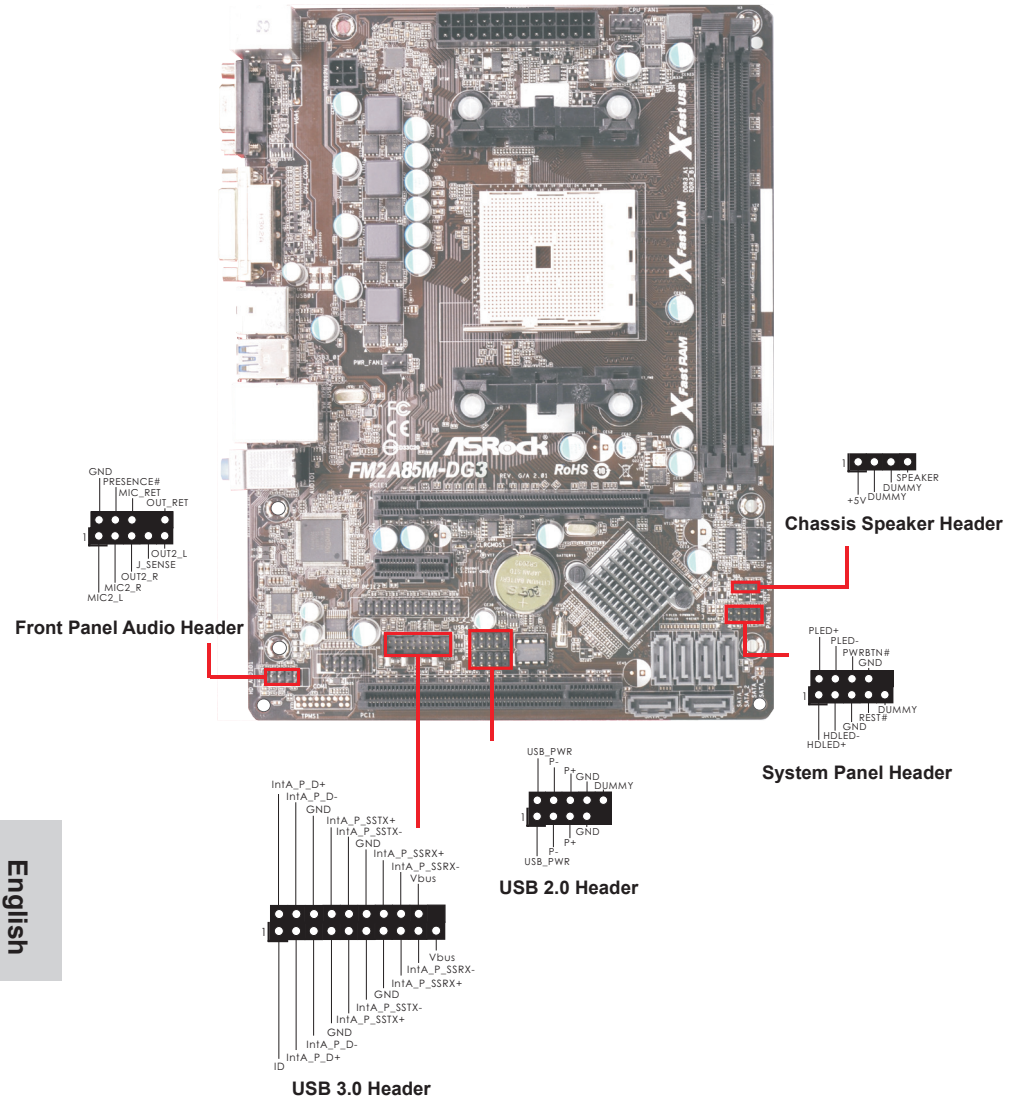
CAUTION!

1. Whether 1866/1600MHz memory speed is supported depends on the CPU you adopt. If you want to adopt DDR3 1866/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.
   ASRock website http://www.asrock.com
2. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 8 / 7 / Vista™. For Windows® 64-bit OS with 64-bit CPU, there is no such limitation. You can use ASRock XFast RAM to utilize the memory that Windows® cannot use.
3. For the discrete GPUs which support Dual Graphics technology, please refer to http://www.amd.com/us/products/technologies/dual-graphics/Pages/dual-graphics.aspx#3 for details.

English

1.3 Pin Header Easy Installation Guide

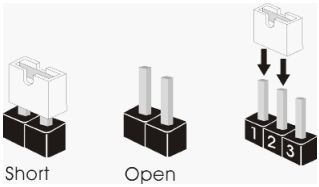
ASRock motherboard is equipped with pin headers with obvious colors which indicate you to recognize the crucial headers more easily. Please refer to below illustrations for the pin definition of onboard headers. If you want to have more information about the usage of these headers, please refer to “Jumpers Setup“ and “Onboard Headers and Connectors“ for details.



English

1.4 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is “Short”. If no jumper cap is placed on pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when jumper cap is placed on these 2 pins.



Jumper	Setting	Description
Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 26)	1_2 Default; 2_3 Clear CMOS	

Note: CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile, 1394 GUID and MAC address will be cleared only if the CMOS battery is removed.

If you clear the CMOS, the case open may be detected. Please adjust the BIOS option “Clear Status” to clear the record of previous chassis intrusion status.

English

1.5 Onboard Headers and Connectors

Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

Serial ATA3 Connectors

(SATA_1: see p. 2, No. 11)

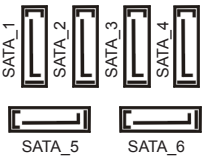
(SATA_2: see p. 2, No. 12)

(SATA_3: see p. 2, No. 14)

(SATA_4: see p. 2, No. 13)

(SATA_5: see p. 2, No. 16)

(SATA_6: see p. 2, No. 15)



These six Serial ATA3 (SATA3) connectors support SATA data cables for internal storage devices. The current SATA3 interface allows up to 6.0 Gb/s data transfer rate.

Serial ATA (SATA) Data Cable

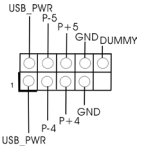
(Optional)

Either end of the SATA data cable can be connected to the SATA3 hard disk or the SATA3 connector on this motherboard.

USB 2.0 Headers

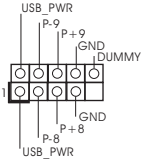
(9-pin USB4_5)

(see p. 2, No. 18)



(9-pin USB8_9)

(see p. 2, No. 19)



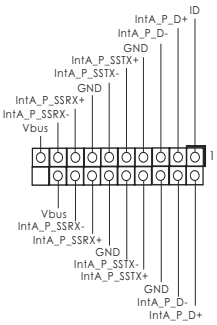
Besides four default USB 2.0 ports on the I/O panel, there are two USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

English

USB 3.0 Header

(19-pin USB3_2_3)

(see p. 2, No. 21)

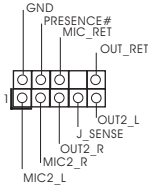


Besides two default USB 3.0 ports on the I/O panel, there is one USB 3.0 header on this motherboard. This USB 3.0 header can support two USB 3.0 ports.

Front Panel Audio Header

(9-pin HD_AUDIO1)

(see p. 2, No. 23)



This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
   A. Connect Mic_IN (MIC) to MIC2_L.
   B. Connect Audio_R (RIN) to OUT2_R and Audio_L (LIN) to OUT2_L.
   C. Connect Ground (GND) to Ground (GND).
   D. MIC_RET and OUT_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
   E. To activate the front mic.
   For Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
   Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

Chassis Intrusion Header

(2-pin CI1)

(see p.2, No. 28)

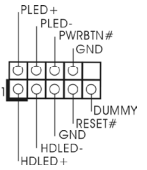
This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

English

System Panel Header

(9-pin PANEL1)

(see p.2 No. 10)



This header accommodates several system front panel functions.

Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

PWRBTN (Power Switch):
Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

RESET (Reset Switch):
Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

PLED (System Power LED):
Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the sys-tem is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

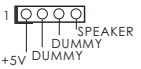
HDLED (Hard Drive Activity LED):
Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assign-ments are matched correctly.

Chassis Speaker Header

(4-pin SPEAKER 1)

(see p.2 No. 9)

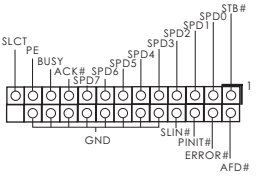


Please connect the chassis speaker to this header.

Print Port Header

(25-pin LPT1)

(see p.2 No. 20)



This is an interface for print port cable that allows convenient connection of printer devices.

English

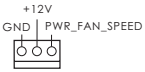
Chassis and Power Fan Connectors

(4-pin CHA_FAN1)

(see p.2 No. 7)

(3-pin PWR_FAN1)

(see p.2 No. 29)

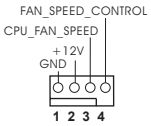


Please connect the fan cables to the fan connectors and match the black wire to the ground pin. CHA_FAN1 fan speed can be controlled through UEFI or AXTU.

CPU Fan Connectors

(4-pin CPU_FAN1)

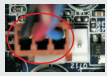
(see p.2 No. 5)



Please connect the CPU fan cable to the connector and match the black wire to the ground pin.

Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

Pin 1-3 Connected

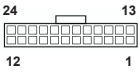


3-Pin Fan Installation

ATX Power Connector

(24-pin ATXPWR1)

(see p.2 No. 2)



Please connect an ATX power supply to this connector.

Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation

ATX 12V Power Connector

(4-pin ATX12V1)

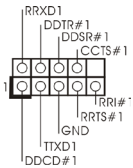
(see p.2, No. 1)

Please connect an ATX 12V power supply to this connector.

Serial port Header

(9-pin COM1)

(see p.2 No.22)



This COM1 header supports a serial port module.

English

2. BIOS Information

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

3. Software Support CD information

This motherboard supports various Microsoft® Windows® operating systems: 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if “AUTORUN” is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file “ASSETUP.EXE” from the BIN folder in the Support CD to display the menus.

Spezifikationen

Plattform	- Micro ATX-Formfaktor - Alle Feste Kondensatordesign
CPU	- Unterstützt Sockel-FM2-100-W-Prozessoren - Unterstützt Cool 'n' Quiet™-Technologie von AMD - UMI-Link-GEN2
Chipsatz	- AMD A85X (Hudson-D4)
Speicher	- Unterstützung von Dual-Kanal-Speichertechnologie - 2 x Steckplätze für DDR3 - Unterstützt DDR3 1866/1600/1333/1066 non-ECC, unge pufferter Speicher - Max. Kapazität des Systemspeichers: 32GB - Unterstützt Intel® Extreme Memory Profile (XMP)1.3/1.2 - Unterstützt AMD Memory Profile (AMP)
Erweiterungs-steckplätze	- 1 x PCI-Express-2.0-x16-Steckplätze (PCIE1: x16-Modus) - 1 x PCI Express 2.0 x1-Steckplätze - 1 x PCI -Steckplätze - Unterstützt AMD duale Grafikkarten
Onboard-VGA	- AMD Radeon HD 7000-Grafik - DirectX 11, Pixel Shader 5.0 - Maximal gemeinsam genutzter Speicher 2GB - Doppel-VGA Ausgabe: unterstützt DVI und D-Sub Ports durch unabhängige Bildschirmanzeige Kontrolleure - Unterstützt Dual-link DVI mit einer maximalen Auflösung von 2560 x 1600 bei 75 Hz - Unterstützt D-Sub mit einer maximalen Auflösung von 1920 x 1600 bei 60 Hz - Unterstützt AMD Steady Video™ 2.0: Neuartige Funktion der Videonachbearbeitung für automatische Reduzierung von Bildschwankungen bei Heim-/Online-Videos - Unterstützt HDCP-Funktion mit DVI-Port - Unterstutzt 1080p Blu-ray (BD) / HD-DVD-Wiedergabe mit DVI-Port
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Unterstützt Wake-On-LAN - Unterstützt LAN-Kabelerkennung - Unterstützt energieeffizientes Ethernet 802.3az - Unterstützt PXE

E/A-Anschlüsse an der Rückseite	I/O Panel - 1 x PS/2-Mausanschluss - 1 x PS/2-Tastaturanschluss - 1 x D-Sub port - 1 x DVI-D port - 4 x Standard-USB 2.0-Anschlüsse - 2 x Standard-USB 3.0-Anschlüsse - 1 x RJ-45 LAN Port mit LED (ACT/LINK LED und SPEED LED) - HD Audiobuchse: Audioeingang / Lautsprecher vorne / Mikrofon
Speichergerät	- 6 x SATA 3-Anschluss mit 6,0 Gb/s, unterstützt RAID- (RAID 0, RAID 1, RAID 5 und RAID 10), NCQ-, AHCI- und „Hot Plugging“-Funktionen
Anschlüsse	- 1 x Druckerport-Anschlussleiste - 1 x COM-Anschluss-Header - 1 x Verteiler für Gehäuseeindringversuche - 1 x CPUlüfter-Anschluss (4-pin) - 1 x Gehäuselüfter-Anschluss (4-pin) - 1 x Stromlüfter-Anschluss (3-pin) - 1 x 24-pin ATX-Netz-Header - 1 x 4-pin anschluss für 12V-ATX-Netzteil - 1 x Anschluss für Audio auf der Gehäusevorderseite - 2 x USB 2.0-Anschlüsse (Unterstützung 4 zusätzlicher USB 2.0-Anschlüsse) - 1 x USB 3.0-Anschlüsse (Unterstützung 2 zusätzlicher USB 3.0-Anschlüsse)
BIOS	- 64Mb AMIs Legal BIOS UEFI mit GUI-Unterstützung - Unterstützung für “Plug and Play” - ACPI 1.1-Weckfunktionen - JumperFree-Modus - SMBIOS 2.3.1 - DRAM, VDDP, VDDR, SB Stromspannung Multianpassung
Support-CD	- Treiber, Dienstprogramme, Antivirussoftware (Probeversion), CyberLink MediaEspresso 6.5-Testversion, Google Chrome Browser und Toolbar

Hardware Monitor	- CPU-Temperatursensor - Motherboardtemperaturerkennung - Drehzahlmessung für CPU/Gehäuse/Stromlüfter - Geräuscharmer CPU/Gehäuselüfter - Mehrstufige Geschwindigkeitsteuerung für CPU-/ Gehäuselüfter - GEHÄUSE OFFEN-Erkennung - Spannungsüberwachung: +12V, +5V, +3.3V, Vcore
Betriebssysteme	- Unterstützt Microsoft® Windows® 8 / 8 64-Bit / 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit
Zertifizierungen	- FCC, CE, WHQL - Gemäß Ökodesign-Richtlinie (ErP/EuP) (Stromversorgung gemäß Ökodesign-Richtlinie (ErP/EuP) erforderlich)

* Für die ausführliche Produktinformation, besuchen Sie bitte unsere Website: http://www.asrock.com

Spécifications

Format	- Facteur de forme Micro ATX - Accessoires de Carte mère
CPU	- Support des unités centrales Socket FM2 100W - Supporte la technologie Cool 'n' Quiet™ d'AMD - UMI-Link GEN2
Chipsets	- AMD A85X (Hudson-D4)
Mémoire	- Compatible avec la Technologie de Mémoire à Canal Double - 2 x slots DIMM DDR3 - Supporter DDR3 1866/1600/1333/1066 non-ECC, sans amortissement mémoire - Capacité maxi de mémoire système: 32GB - Prend en charge le profil de mémoire extrême Intel® (XMP) 1.3/1.2 - Prend en charge le profil de mémoire AMD (AMP)
Slot d'extension	- 1 x slot PCI Express 2.0 x16 (PCIE1 à mode x16) - 1 x slot PCI Express 2.0 x1 - 1 x slot PCI - Support de AMD Dual Graphics
VGA sur carte	- Graphiques à l'AMD Radeon HD 7000 - DirectX 11, nuanceur de pixels 5.0 - mémoire partagée max 2GB - Output de VGA Duel: supporter DVI et D-Sub ports par les controleurs de display independents - Prend en charge le Dual-link DVI avec une résolution maximale jusqu'à 2560x1600 @ 75Hz - Prend en charge le D-Sub avec une résolution maximale jusqu'à 1920x1600 @ 60Hz - Supporte AMD Steady Video™ 2.0: Nouvelle fonctionnalité de traitement post-vidéo pour réduction automatique des tremblements dans les clips vidéo en ligne/maison - Prise en charge de la fonction HDCP avec ports DVI - Supporter 1080p Blu-ray(BD)/ lecteur de HD-DVD avec ports DVI
Audio	- 5,1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Supporte du Wake-On-LAN - Prise en charge de la détection de câble LAN

	- Prend en charge la norme Energy Efficient Ethernet (Ethernet à efficacité énergétique) 802.3az - Supporte PXE
Panneau arrière	I/O Panel - 1 x port souris PS/2 - 1 x port clavier PS/2 - 1 x port D-Sub - 1 x port DVI-D - 4 x ports USB 2.0 par défaut - 2 x ports USB 3.0 par défaut - 1 x port LAN RJ-45 avec LED (ACT/LED CLIGNOTANTE et LED VITESSE) - Prise HD Audio: Entrée Ligne / Haut-parleur frontal / Microphone
Stockage	- 6 x connecteurs 6,0 Gb/s SATA3, prise en charge des fonctions RAID (RAID 0, RAID 1, RAID 5 et RAID 10), NCQ, AHCI et « Connexion à chaud »
Connecteurs	- 1 x embase de port d'impression - 1 x En-tête de port COM - 1 x Embase d'intrusion châssis - 1 x Connecteur pour ventilateur de CPU (br. 4) - 1 x Connecteur pour ventilateur de Châssis (br. 4) - 1 x Connecteur pour ventilateur de pouvoir (br. 3) - 1 x br. 24 connecteur d'alimentation ATX - 1 x br. 4 connecteur d'alimentation 12V ATX - 1 x Connecteur audio panneau avant - 2 x En-tête USB 2.0 (prendre en charge 4 ports USB 2.0 supplémentaires) - 1 x En-tête USB 3.0 (prendre en charge 2 ports USB 3.0 supplémentaires)
BIOS	- 64Mb AMI UEFI Legal BIOS avec support GUI - Support du "Plug and Play" - Compatible pour événements de réveil ACPI 1.1 - Gestion jumperless - Support SMBIOS 2.3.1 - DRAM, VDDP, VDDR, SB Tension Multi-ajustement

CD d'assistance	- Pilotes, utilitaires, logiciel anti-virus (Version d'essai),CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser et Toolbar
Surveillance système	- Détection de la température de l'UC - Mesure de température de la carte mère - Tachéomètre ventilateur CPU/Châssis/Ventilateur - Ventilateur silencieux pour unité CPU/Châssis - Commande de ventilateur CPU/Châssis à plusieurs vitesses - Détection d'OUVERTURE DE BOÎTIER - Monitoring de la tension: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit
Certifications	- FCC, CE, WHQL - Prêt pour ErP/EuP (alimentation Prêt pour ErP/EuP requise)

* Pour de plus amples informations sur les produits, s'il vous plaît visitez notre site web: http://www.asrock.com

Specifiche

Piattaforma	- Micro ATX Form Factor - Design condensatore compatto
Processore	- Supporto per processori socket FM2 100W - Supporto tecnologia AMD Cool 'n' Quiet™ - UMI-Link GEN2
Chipset	- AMD A85X (Hudson-D4)
Memoria	- Supporto tecnologia Dual Channel Memory - 2 x slot DDR3 DIMM - Supporto DDR3 1866/1600/1333/1066 non-ECC, momoria senza buffer - Capacità massima della memoria di sistema: 32GB - Supporto di Intel® XMP (Extreme Memory Profile)1.3/1.2 - Supporto di AMD AMP (AMD Memory Profile)
Slot di espansione	- 1 x slot PCI Express 2.0 x16 (PCIE1 modalità x16) - 1 x slot PCI Express 2.0 x1 - 1 x slot PCI - Supporta AMD Dual Graphics
VGA su scheda	- Grafica AMD Radeon HD 7000 - DirectX 11, Pixel Shader 5.0 - Memoria massima condivisa 2GB - Uscita VGA Doppia: supporto porte DVI e D-Sub tramite verificatore display indipendente - Supporta Dual-link DVI con risoluzione massima fino a 2560x1600 @ 75Hz - Supporta D-Sub con risoluzione massima fino a 1920x1600 @ 60Hz - Supporta AMD Steady Video™ 2.0: Nuova capacità di post-elab orazione video per la riduzione automatica delle vibrazioni nei video a casa/on-line - Supporto della funzione HDCP con le porte DVI - Supporto 1080p Blu-ray (BD) / HD-DVD riproduzione con le porte DVI
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Supporta Wake-On-LAN - Supporta il rilevamento cavo LAN - Supporto di Energy Efficient Ethernet 802.3az - Supporta PXE

Pannello posteriore I/O	I/O Panel - 1 x porta PS/2 per mouse - 1 x porta PS/2 per tastiera - 1 x Porta D-Sub - 1 x Porta DVI-D - 4 x porte USB 2.0 già integrate - 2 x porte USB 3.0 già integrate - 1 x porte LAN RJ-45 con LED (LED azione/collegamento e LED velocità) - Connettore HD Audio: ingresso linea / cassa frontale / microfono
Interfaccia di storage	- 6 x connettori SATA3 6,0 Gb/s, supporto di RAID (RAID 0, RAID 1, RAID 5 e RAID 10) e delle funzioni NCQ, AHCI e “Hot Plug”
Connettori	- 1 x Collettore porta stampante - 1 x collettore porta COM - 1 x header di intrusione dello chassis - 1 x Connettore CPU ventola (4-pin) - 1 x Connettore Chassis ventola (4-pin) - 1 x Connettore Alimentazione ventola (3-pin) - 1 x 24-pin collettore alimentazione ATX - 1 x 4-pin connettore ATX 12V - 1 x Connettore audio sul pannello frontale - 2 x Collettore USB 2.0 (supporta 4 porte USB 2.0) - 1 x Collettore USB 3.0 (supporta 2 porte USB 3.0)
BIOS	- 64Mb AMI UEFI Legal BIOS con interfaccia di supporto - Supporta “Plug and Play” - Compatibile con ACPI 1.1 wake up events - Supporta jumperfree - Supporta SMBIOS 2.3.1 - Regolazione multi-voltaggio DRAM, VDDP, VDDR, SB
CD di supporto	- Driver, utilità, software antivirus (Versione dimostrativa), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser e Toolbar
Monitoraggio Hardware	- Sensore per la temperatura del processore - Sensore temperatura scheda madre - Indicatore di velocita per la ventola del CPU/chassis/ Alimentazione - Ventola CPU/chassis silenziosa - Ventola CPU/chassis con controllo di varie velocità - Rilevamento CASE APERTO

	- Voltaggio: +12V, +5V, +3.3V, Vcore
Compatibilità SO	- Microsoft® Windows® 8 / 8 64 bit / 7 / 7 64 bit / Vista™ / Vista™ 64 bit
Certificazioni	- FCC, CE, WHQL - Predisposto ErP/EuP (è necessaria l'alimentazione predisposta per il sistema ErP/EuP)

* Per ulteriori informazioni, prego visitare il nostro sito internet: http://www.asrock.com

Especificación

Plataforma	- Factor forma Micro ATX - Todo diseño de Capacitor Sólido
Procesador	- Admite procesadores de 100 W para zócalo FM2 - Con soporte para tecnología Cool 'n' Quiet™ de AMD - UMI-Link GEN2
Chipset	- AMD A85X (Hudson-D4)
Memoria	- Soporte de Tecnología de Memoria de Doble Canal - 2 x DDR3 DIMM slots - Apoya DDR3 1866/1600/1333/1066 non-ECC, memoria de un-buffered - Máxima capacidad de la memoria del sistema: 32GB - Compatible con Intel® Extreme Memory Profile (XMP)1.3/1.2 - Compatible con AMD Memory Profile (AMP)
Ranuras de Expansión	- 1 x ranura PCI Express 2.0 x16 (PCIE1: modo x16) - 1 x ranura PCI Express 2.0 x1 - 1 x ranura PCI - Admite AMD Dual Graphics
VGA OnBoard	- Tarjeta gráfica AMD Radeon HD 7000 - DirectX 11, Pixel Shader 5.0 - 2GB de Memoria máxima compartida - Salida de VGA dual: apoya los puertos de DVI y de D-Sub por los reguladores independientes de la exhibición - Admite Dual-link DVI con una resolución máxima de 2560x1600 a 75 Hz - Admite D-Sub con una resolución máxima de 1920x1600 a 60 Hz - Admite AMD Steady Video™ 2.0: Nueva capacidad de pospro cesamiento de vídeo para reducción automática de oscila ciones en vídeo doméstico y en línea - Admite la función HDCP con puertos DVI - Apoya la reproducción de Blu-rayo de 1080p (BD) / HD-DVD con puertos DVI
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Soporta Wake-On-LAN - Admite detección de conexión de cable LAN - Compatible con Ethernet 802.3az de bajo consumo energético - Compatible con PXE

Entrada/Salida de Panel Trasero	I/O Panel - 1 x puerto de ratón PS/2 - 1 x puerto de teclado PS/2 - 1 x Puerto D-Sub - 1 x Puerto DVI-D - 4 x puertos USB 2.0 predeterminados - 2 x puertos USB 3.0 predeterminados - 1 x Puerto LAN RJ-45 con LED (LED de ACCIÓN/ ENLACE y LED de VELOCIDAD) - Conexión de audio: Entrada de línea / Altavoz frontal / Micrófono
Interfaz de almacenamiento	- 6 x conectores SATA3 de 6,0 Gb/s compatibles con funciones RAID (RAID 0, RAID 1, RAID 5 y RAID 10), NCQ, AHCI y de “conexión en caliente”
Conectores	- 1 x cabecera de puerto de impresora - 1 x En-tête de port COM - 1 x Conector de detección de intrusión en el chasis - 1 x Conector de ventilador de CPU (4-pin) - 1 x Conector de ventilador de chasis (4-pin) - 1 x Conector de ventilador de alimentacion (3-pin) - 1 x 24-pin cabezal de alimentación ATX - 1 x 4-pin conector de ATX 12V power - 1 x Conector de audio de panel frontal - 2 x Cabezal USB 2.0 (admite 4 puertos USB 2.0 adicionales) - 1 x Cabezal USB 3.0 (admite 2 puertos USB 3.0 adicionales)
BIOS	- 64Mb AMI BIOS legal UEFI AMI compatible con GUI - Soporta “Plug and Play” - ACPI 1.1 compliance wake up events - Soporta “jumper free setup” - Soporta SMBIOS 2.3.1 - Múltiple ajuste de DRAM, VDDP, VDDR, SB Voltage

CD de soport	- Controladores, Utilerías, Software de Anti Virus (Versión de prueba), Prueba de CyberLink MediaEspresso 6.5, Google Chrome Browser y Toolbar
Monitor Hardware	- Sensibilidad a la temperatura del procesador - Sensibilidad a la temperatura de la placa madre - Taquimetros de los ventiladores del procesador y del CPU / chasis / alimentacion - Ventilador silencioso del CPU / chasis - Control de ajuste de la velocidad del ventilador de la CPU y el chasis - Control de APERTURA DE CARCASA - Monitor de Voltaje: +12V, +5V, +3.3V, Vcore
OS	- En conformidad con Microsoft® Windows® 8 / 8 64 bits / 7 / 7 64 bits / Vista™ / Vista™ 64 bits
Certificaciones	- FCC, CE, WHQL - Cumple con la directiva ErP/EuP (se requiere una fuente de alimentación que cumpla con la directiva ErP/EuP)

* Para más información sobre los productos, por favor visite nuestro sitio web: http://www.asrock.com

Спецификации

Платформа	- форм-фактор Micro ATX - Весь Твердый Конденсаторный проект
Процессор	- Поддерживаются процессоры для гнезда Socket FM2 с потребляемой мощностью до 100 Вт - Поддержка технологии AMD Cool 'n' Quiet™ - UMI-Link GEN2
Набор микросхем	- AMD A85X (Hudson-D4)
Память	- Поддержка технологии Dual Channel DDR3 Memory Technology - 2 x гнезда DDR3 DIMM - Поддержите DDR3 1866/1600/1333/1066 не- ECC, безбуферная память - Макс. 32 Гб - поддержка профиля Intel® Extreme Memory Profile (XMP)1.3/1.2 - поддержка профиля AMD Memory Profile (AMP)
Гнезда расширения	- 1 x гнезда PCI Express 2.0 x16 (PCIE1: режим x16) - 1 x гнезда PCI Express 2.0 x1 - 1 x гнезда PCI - Поддерживаются режимы AMD двойные видеокарты
Графика	- Видеоадаптер AMD Radeon HD 7000 - Поддержка DirectX 11, Pixel Shader 5.0 - Макс. объем разделяемой памяти 2GB - Двойственное VGA выходное устройство: поддерживает DVI и D-Sub порты через независимый контроллер дисплея - Поддержка Dual-link DVI с максимальным разрешением до 2560x1600 @ 75 Гц - Поддержка D-Sub с максимальным разрешением до 1920x1600 @ 60 Гц - Поддержка технологии AMD Steady Video™ 2.0: новая функция постобработки видеоизображения для автоматического устранения дрожания при просмотре домашних и онлайновых видеозаписей - Поддержка функции HDCP через разъемы DVI - Подержат Blu-луч 1080p (КОММУТАЦИОННАЯ ДОСКА) / воспроизведение HD-DVD через разъемы DVI
Аудиосистема	- 5.1 CH HD Аудио HD (Кодер-декодер Аудио Realtek ALC662)
ЛВС	- PCIE x 1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - поддержка Wake-On-LAN - Поддержка определения кабеля ЛВС - Поддержка энергосберегающего интерфейса Ethernet 802.3az - Поддержка PXE
Разъемы ввода-вывода на задней панели	I/O Panel - 1 x порт мыши PS/2 - 1 x порт клавиатуры PS/2 - 1 x D-Sub порт

	- 1 x DVI-D порт - 4 x порта USB 2.0 на задней панели в стандартной конфигурации - 2 x порта USB 3.0 на задней панели в стандартной конфигурации - Разъем 1 x RJ-45 LAN с светодиодным индикатором (индикатор ACT/LINK и индикатор SPEED) - Соединитель звуковой подсистемы: линейный вход / передняя колонка / микрофон
Интерфейсы накопителей	- 6 x разъема SATA3 6,0 Гбит/с, поддержка функций RAID (RAID 0, RAID 1, RAID 5 и RAID 10), NCQ, AHCI и «горячего подключения»
Колодки и плате	- 1 x Разъем порта печати - 1 x Колодка COM - 1 x разъем датчика открытой крышки - 1 x соединитель CPU FAN (4-контактный) - 1 x соединитель Chassis FAN (4-контактный) - 1 x соединитель Power FAN (3-контактный) - 1 x 24-контактный Колодка питания ATX - 1 x 4-контактный Разъем ATX 12 B - 1 x Аудиоразъем передней панели - 2 x Колодка USB 2.0 (одна колодка для поддержки 4 дополнительных портов USB 2.0 - 1 x Колодка USB 3.0 (одна колодка для поддержки 2 дополнительных портов USB 3.0)
BIOS	- 64Mb AMI UEFI Legal BIOS с поддержкой графическоro интерфейса поль зователя - поддержка “Plug and Play” - ACPI 1.1, включение по событиям - поддержка режима настройки без перемычек - поддержка SMBIOS 2.3.1 - Регулировка напряжений DRAM, VDDP, VDDR, SB
Компактдиск поддержки	- Драйверы, Утилиты, Антивирус (пробная версия), Пробная версия программы CyberLink MediaEspresso 6.5, Google Chrome Browser и Toolbar
Контроль оборудования	- Датчики температуры процессора - Датчики температуры корпуса - Тахометры вентиляторов ЦП/Шасси/Power FAN - Бесшумный вентилятор ЦП/Шасси блока - Мультиконтроль скорости вентилятора ЦП/Шасси - Определение открытой крышки - Контроль напряжения: +12V, +5V, +3.3V, Vcore

Операцион	- Совместимость с Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Поддержка 64-разрядной версии Vista™
ные системы	- FCC, CE, WHQL
Сертификаты	- Совместимость с ErP/EuP Ready (требуется блок питания совместимый с ErP/EuP)

* Для детальной информации продукта, пожалуйста посетите наш вебсайт: http://www.asrock.com

Especificações

Plataforma	- Formato Micro ATX - Design de condensadores banhados a ouro de alta qualidade
CPU	- Suporte para processadores com Socket FM2 de 100W - Suporta a tecnologia Cool 'n' Quiet da AMD - UMI-Link GEN2
Chipsets	- AMD A85X (Hudson-D4)
Memória	- Suporte à tecnologia de memória de duplo canal - 2 x slots de DDR3 DIMM - Suporta memória DDR3 1866/1600/1333/1066, não ECC, sem tampão - Capacidade máxima de memória do sistema: 32GB - Suporta Extreme Memory Profile (XMP)1.3/1.2 da Intel® - Suporta Perfil de Memória AMD (AMP)
Slots de Expansão	- 1 x slot de PCI Express 2.0 x16 (PCIE1: modo x16) - 1 x slot de PCI Express 2.0 x1 - 1 x slot de PCI - Suporta Dual Graphics da AMD
VGA integrado	- Placa gráfica AMD Radeon HD Série 7000 - DirectX 11, Pixel Shader 5.0 - Memória partilhada máxima 2GB - Porta de saída VGA dupla: suporta portas DVI e D-Sub através de controladores de visualização independentes - Suporta Dual-link DVI com resolução máxima até 2560x1600 @ 75Hz - Suporta D-Sub com resolução máxima até 1920x1600 @ 60Hz - Suporta AMD Steady Video™ 2.0: Nova capacidade de pós-processamento de vídeo para redução automática de vibrações em vídeo local/online - Suporta função HDCP com porta DVI - Suporta a norma Blu-ray de alta definição 1080p (BD) / e a reprodução de DVDs de alta definição com porta DVI
Áudio	- Áudio HD de 5.1 canais (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Suporta Wake-On-LAN - Suporta Detecção de cabo LAN - Suporta Ethernet com Eficiência Energética 802.3az - Suporta PXE

Entrada/Saída pelo painel	I/O Panel - 1 x porta para mouse PS/2 - 1 x porta para teclado PS/2 - 1 x porta D-Sub - 1 x porta DVI-D - 4 x portas USB 2.0 padrão - 2 x portas USB 3.0 padrão - 1 x porta LAN RJ-45 com LED (LED ACT/LIG e LED VELOCIDADE) - Ficha de áudio HD: Entrada de linha / Altifalante frontal / Microfone
Interface de Armazenamento	- 6 x conectores SATA3 a 6,0 Gb/s, com suporte para RAID (RAID 0, RAID 1, RAID 5 e RAID 10), NCQ, AHCI e funções Hot Plug
Conectores	- 1 x Conector de Porta de Impressão - 1 x conector de porta COM - 1 x Conector de intrusão no chassis - 1 x Conector do ventilador da CPU (4 pinos) - 1 x Conector do ventilador da chassis (4 pinos) - 1 x Conector do ventilador da energia (3 pinos) - 1 x Conector de força do ATX de 24 pinos - 1 x Conector ATX 12 V de 4 pinos - 1 x Conector Áudio do painel frontal - 2 x cabezal USB 2.0 (suporta 4 portas USB 2.0) - 1 x cabezal USB 3.0 (suporta 2 portas USB 3.0)
BIOS	- 64Mb BIOS UEFI oficial da AMI com suporte para GUI - Suporta dispositivos “Plug and Play” - ACPI 1.1 atendendo a eventos de “wake up” - Suporta dispositivos sem jumper - Suporte para SMBIOS 2.3.1 - DRAM, VDDP, VDDR, SB Voltage Multi-adjustment
CD de suporte	- Controladores, utilitários, software antivírus (Experimentacao Versao), CyberLink MediaEspresso 6.5 versão de demonstração, Navegador Google Chrome e Barra de Ferramentas

Monitor do HW	- Sensores de temperature do procesador - Medição de temperatura da placa-mãe - Tacômetros de ventilador do Processador/chassis/energia - Ventoinha silenciosa para a CPU/Chassis - CPU/Chassis Fan Controle Multi-Velocidade - Detecção de ABERTURA da CAIXA - Monitoramento de voltagem : +12 V, +5 V, +3.3 V, Vcore
Sistema Operacional	- Microsoft® Windows® 8 / 8 de 64 bits / 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits
Certificações	- FCC, CE, WHQL - "ErP/EuP Ready" (é necessária alimentação eléctrica "ErP/ EuP Ready")

* Para informações mais detalhadas por favor visite o nosso sítio Web: http://www.asrock.com

Özellikler

Platform	- Micro ATX Form Faktörü - Tüm Katı Kapasitör tasarımı
CPU	- Yuva Tipi FM2 100W İşlemcileri destekler - AMD'nin Cool 'n' Quiet™ Teknolojisini Destekler - UMI-Bağlantısı GEN2
Yonga seti	- AMD A85X (Hudson-D4)
Bellek	- Çift Kanallı DDR3 Belleği Teknolojisi - 2 x DDR3 DIMM yuva - DDR3 1866/1600/1333/1066 ECC olmayan, ara belleksiz bellek - Sistem belleğinin maks. kapasitesi: 32 GB - Intel® Extreme Bellek Profilini (XMP)1.3/1.2 destekler - AMD Bellek Profilini (AMP) destekler
Genişletme Yuvası	- 1 x PCI Express 2.0 x16 yuva (PCIE1: x16 modu) - 1 x PCI Express 2.0 x1 yuva - 1 x PCI yuva - AMD Dual Graphics'i destekler
Grafikler	- AMD Radeon HD 7000 grafik - DirectX 11, Pixel Shader 5.0 - Maks. paylaюəlan bellek 2GB - Çift VGA Çıkış: desteği DVI ve bağımsız görüntü denetleyiciler tarafından D-Sub bağlantı noktaları - 75Hz'de 2560x1600'e kadar maks. зцzьnьrlьkle Dual-link DVI'yə destekler - 60Hz'de 1920x1600'ya kadar maks. зцzьnьrlьkle D-Sub'ə destekler - AMD Steady Video™'yu destekler 2.0: Ev/çevrimiçi videoda otomatik titreşim azaltma için yeni video işleme sonrası özelliği - DVI portlarəyla HDCP iюlevini destekler - DVI portlarəyla Tam HD 1080p Blu-ray (BD) / HD-DVD oynatəmənə destekler
Ses	- (Realtek ALC662 Ses Codec'i) 5,1 Kanal HD Ses
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/sn - Realtek RTL8111E - LAN'da Uyan özelliğini destekler - LAN Kablo Algılama'yı destekler - Enerji Verimli Ethernet 802.3az desteği - PXE'yi destekler

Arka Panel G/3	G/3 Paneli - 1 x PS/2 Fare Portu - 1 x PS/2 Klavye Port - 1 x D-Sub Portu - 1 x DVI-D Portu - 4 x Kullanıma Hazır USB 2.0 Portu - 2 x Kullanıma Hazır USB 3.0 Portu - 1 x RJ-45 LAN Portu, LED'li (AKT/LƏNK LED'i ve HIZ LED) - HD Ses Jakı: Hat Girişi/Ön Hoparlör/Mikrofon
Depolama Ara yüzü	- 6 x SATA3 6,0Gb/sn konektör, donanım RAID (RAID 0, RAID 1, RAID 5 ve RAID 10), NCQ, AHCI ve "Sistem Aзәkken Bileюen Takma" işlevlerini
Konektör	- 1 x Yazdərma Portu fiюi - 1 x COM portu fişi - 1 x Kasaya Yetkisiz Erişim fişi - 1 x Conector do ventilador da CPU (4 pinos) - 1 x Conector do ventilador da chassis (4 pinos) - 1 x Conector do ventilador da energia (3 pinos) - 1 x 24 pin ATX güç konektörü - 1 x 4 pin 12V güç konektörü - 1 x Ön panel ses konektörü - 2 x USB 2.0 fiş (4 USB 2.0 portu destekler) - 1 x USB 3.0 fiş (2 USB 3.0 portu destekler)
BIOS Özelliği	- 64 Mb AMI BIOS - GUI destekli AMI UEFI Geçerli BIOS - "Tak Çalıştır"ı destekler - ACPI 1.1 Uyumlu Uyandırma Olayları - Jumpersız ayarlamayı destekler - AMBIOS 2.3.1 Desteği - DRAM, VDDP, VDDR, SB Voltaj Çoklu ayarı
Destek CD'si	- Sürücüler, Yardımcı Programlar, AntiVirüs Yazılımı (Deneme Sürümü), CyberLink MediaEspresso 6.5 Deneme Sürümü, Google Chrome Browser ve Toolbar
Donanım Monitör	- CPU Sıcaklık Duyarlılığı - Kasa Sıcaklık Duyarlılığı - CPU/Kasa/Güç Fan Takometresi - CPU/Kasa Sessiz Fanı - CPU/Kasa Fan Çoklu-Hız Kontrolü - KASA AÇIK algılaması - Voltaj İzleme: +12V, +5V, +3,3V, CPU Vcore

İS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit uyumlu
Sertifikalar	- FCC, CE, WHQL - ErP/EuP Hazır (ErP/EuP hazır güç kaynağı gerekli)

* Ayrıntılı ürün bilgileri için lütfen web sitemizi ziyaret edin: http://www.asrock.com

플랫폼	- Micro ATX 폼 팩터 - 완전 고체 축전지 디자인
CPU	- 소켓 FM2 100W 프로세서 지원 - AMD 의 Cool 'n' Quiet™ 기술 지원 - UMI-Link GEN2
칩셋	- AMD A85X (Hudson-D4)
메모리	- 듀얼 채널 메모리 기술 지원 - DDR3 DIMM 슬롯 2 개 - DDR3 1866/1600/1333/1066 비 -ECC, 언버퍼드 메모리를 지원 - 최대 시스템 메모리 용량 : 32GB - Intel® 익스트림 메모리 프로파일 (XMP)1.3/1.2 지원 - AMD 메모리 프로파일 (AMP) 지원
확장 슬롯	- 1 개의 PCI Express 2.0 x16 슬롯 (PCIE1: x16 모드) - 1 개의 PCI Express 2.0 x1 슬롯 - 1 개의 PCI 슬롯 - AMD 듀얼 그래픽 지원
온보드 VGA	- AMD 의 라데온 HD 7000 그래픽 - DirectX 11, Pixel Shader 5.0 - 최대 공유 메모리 2GB - 더블 VGA 수출 : DVI 와 D-Sub 포트 독립 디스플레이 컨트롤러를 지원 - 최대 해상도 2560x1600 @ 75Hz 까지 Dual-link DVI 지원 - 최대 해상도 1920x1600 @ 60Hz 까지 D-Sub 지원 - AMD Steady Video™ 2.0 지원 : 홈 / 온라인 비디오의 자동 떨림감소를 위한 새로운 비디오 포스트 프로세싱 능력 - DVI 포트를 이용한 HDCP 기능 지원 - DVI 포트를 이용한 1080p Blu-ray (BD) / HD-DVD 재생을 지원
오디오	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
랜	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - 웨이크 - 온 - 랜 지원 - LAN 케이블 감지 지원 - 절전형 이더넷 802.3az 지원 - PXE 지원
후면판 I/O	I/O Panel - 1 개 PS/2 마우스 포트 - 1 개 PS/2 키보드 포트 - 1 개의 D-Sub 포트

	- 1 개의 DVI-D 포트 - 4 개디폴트 USB 2.0 포트 - 2 개디폴트 USB 3.0 포트 - 1 개 LED(ACT/LINK LED 및 SPEED LED) 가 있는 RJ-45 LAN 포트 - 오디오 잭 : 라인 인 / 전방 스피커 / 마이크
스토리지 인터페이스	- 6 개 의 SATA3 6.0Gb/s 커넥터 , RAID (RAID 0, RAID 1, RAID 5 및 RAID 10), NCQ, AHCI 및 " 핫 플러그 " 기능 지원
온보드 헤더 및 커넥터	- 프린트 포트 헤더 1 개 - COM 포트 헤더 1 개 - 섀시 침입 헤더 1 개 - CPU 팬 커넥터 1 개 (4 핀) - 섀시 팬 커넥터 1 개 (4 핀) - 전원 팬 커넥터 1 개 (3 핀) - 24 핀 ATX 전원 헤더 1 개 - 4 핀 ATX 12V 파워 콘넥터 1 개 - 전면부 오디오 콘넥터 1 개 - USB 2.0 헤더 2 개 (4 개의 추가 USB 2.0 포트를 지원하는 헤더 2 개) - USB 3.0 헤더 1 개 (2 개의 추가 USB 3.0 포트를 지원하는헤더 2 개)
BIOS	- 64Mb GUI 지원을 제공하는 AMI UEFI 적합형 BIOS - "플러그 앤 플레이" 지원 - ACPI 1.1 웨이크 - 업 이벤트와의 호환 - 점퍼 프리 지원 - 점퍼 프리 지원 ; SMBIOS 2.3.1 지원 - DRAM, VDDP, VDDR, SB 전압 멀티 조절
지원 CD	- 드라이버 , 유틸리티 , 안티바이러스 소프트웨어 (시험판), CyberLink MediaEspresso 6.5 평가판 , Google Chrome Browser 및 Toolbar
하드웨어 모니터	- CPU 온도 감지 - 마더보드 온도 감지 - CPU/ 섀시 / 전원 팬 회전 속도계 : 샤시 (케이스) 팬 회전 속도계 - CPU/ 섀시 저소음 팬 - CPU/ 섀시 팬 멀티스피드 컨트롤 - 케이스 열림 감지 - 전압 감시 기능 : +12V,+5V,+3.3V,Vcore

OS	- 마이크로 소프트 Windows® 8/8 64 비트 /7/7 64 비트 /Vista™/ Vista™ 64 비트 와 호환
인증서	- FCC, CE, WHQL - ErP/EuP 지원 (ErP/EuP 지원 전원 공급기가 요구됨)

* 상세한 제품정보는 당사의 웹사이트를 방문할수있습니다 . http://www.asrock.com

仕様

プラットフ	- Micro ATX フォームファクター - 全ソリッド･キャパシター設計
CPU	- Socket FM2 100W Processors に対応 - AMD 社 Cool 'n' Quiet™ をサポート - UMI-Link GEN2
エップセット	- AMD A85X (Hudson-D4)
メモリー	- デュアルエャンネル DDR3 メモリーテクノロジー - DDR3 DIMM スロット x 2 - DDR3 1866/1600/1333/1066 non-ECC, un-buffered メモリーに対応 - システムメモリの最大容量：32GB - Intel® Extreme Memory Profile (XMP)1.3/1.2 をサポート - AMD Memory Profile (AMP) をサポート
拡張スロット	- 1 x PCI Express 2.0 x16 スロット (PCIE1: x16 モード) - 1 x PCI Express 2.0 x1 スロット - 1 x PCI スロット - AMD Dual Graphics に対応
グラフィック	- AMD Radeon HD 7000 シリーズ - DirectX 11、Pixel Shader 5.0 - 最大の共有メモリ 2GB - デュアル VGA 出力：独立型ディスプレイコントローラによる DVI および D-Sub ポートサポート - 2560x1600 @ 75Hz の最大解像度で Dual-link DVI をサポート - 1920x1600 @ 60Hz の最大解像度で D-Sub をサポート - AMD Steady Video™ のサポート：家庭 / オンラインビデオの自動ジッター低減用の新しいビデオポストの処理機能 - HDCP 機能、DVI ポートをサポート - 1080p Blu-ray (BD) / HD-DVD 再生サポート、DVI ポートをサポート
オーディオ	- 5.1 CH HD オーディオ (Realtek ALC662 オーディオ Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Wake-On-LAN をサポート - LAN ケーブル検出をサポート - Energy Efficient Ethernet 802.3az をサポート - PXE をサポート

リアパネル I/O	I/O Panel - PS/2 マウスポート x 1 - PS/2 キーボードポート x 1 - D-Sub ポート x 1 - DVI-D ポート x 1 - Ready-to-Use USB 2.0 ポート x 4 - Ready-to-Use USB 3.0 ポート x 2 - LED(ACT/LINK LED および SPEED LED)付き RJ-45 LAN ポート x 1 - オーディオジャック:入力、前部スピーカー、マイク入力
拡張スロット	- 6 x SATA3 6.0Gb/ 秒コネクタが、RAID (RAID 0、RAID 1、RAID 5 および RAID 10)、NCQ、AHCI および "Hot Plug" (ホットプラグ) 機能をサポート
コネクター	- プリントポートヘッダ x 1 - COM ポートヘッダ x 1 - シャーシ侵入ヘッダ x 1 - CPU ファンコネクタ x 1 (4 ピン) - シャーシファンコネクタ x 1 (4 ピン) - 電源ファンコネクタ x 1 (3 ピン) - 24 ピン ATX 電源コネクター x 1 - 4 ピン 12V 電源コネクター x 1 - フロントパネルオーディオコネクター x 1 - USB 2.0 ヘッダー (USB 2.0 用 4 ポートをサポート) x 2 - USB 3.0 ヘッダー (USB 3.0 用 2 ポートをサポート) x 1
BIOS 関連機能	- 64Mb AMI UEFI Legal BIOS(GUI サポート) - プラグ&プレイをサポート - ACPI 1.1 準拠ウェイクアップイベント - jumperfree モードサポート - SMBIOS 2.3.1 サポート - DRAM、VDDP、VDDR、SB ブリッジ電圧
サポート CD	- ドライバー、ユーティリティ、アンチウィルスソフトウェアハードウェア (体験版)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser および Toolbar
モニター	- CPU 温度検知 - マザーボード温度検知 - CPU/ シャーシ / 電源ファンタコメータ - CPU/ シャーシ静音ファン - CPU/ シャーシファンマルチ速度制御 - ケースオープン検出 - 電源モニター : +12V, +5V, +3.3V, Vcore

OS	- Microsoft® Windows® 8 / 8 64-bit / 7/7 64-bit/ Vista™/Vista™ 64-bit compliant
認証	- FCC, CE, Microsoft® WHQL 認証済み - ErP/EuP 対応(ErP/EuP 対応の電源装置が必要です)

* 製品の詳細については、http://www.asrock.com を御覧なさい。

主板规格

架构	– Micro ATX 规格 – 全固态电容设计
处理器	– FM2 插槽支持 100W 处理器 – 支持 AMD Cool 'n' Quiet™ 冷静技术 – UMI-Link GEN2
芯片组	– AMD A85X (Hudson-D4)
系统内存	– 支持双通道 DDR3 内存技术 – 配备 2 个 DDR3 DIMM 插槽 – 支持 DDR3 1866/1600/1333/1066 non-ECC、un-buffered 内存 – 最高支持 32GB 系统容量 – 支持 Intel® Extreme Memory Profile(XMP)1.3/1.2 – 支持 AMD Memory Profile(AMP)
扩展插槽	– 1 x PCI Express 2.0 x16 插槽 (PCIE1: x16 模式) – 1 x PCI Express 2.0 x1 插槽 – 1 x PCI 插槽 – 支持 AMD 双显卡技术
板载显卡	– AMD Radeon HD 7000 显卡 – DirectX 11、Pixel Shader 5.0 技术 – 最大共享内存 2GB – 双 VGA 输出：通过独立显示控制器提供 DVI 和 D-Sub 接口 – 支持 Dual-link DVI, 最高分辨率达 2560x1600 @ 75Hz – 支持 D-Sub, 最高分辨率达 1920x1600 @ 60Hz – 支持 AMD Steady Video™ 2.0: 最新视频后处理能力，可为家庭 / 在线视频提供自动降低抖动的功能 – 通过 DVI 接口支持 HDCP 功能 – 通过 DVI 接口可播放 1080i 线蓝光光盘 (BD) / HD-DVD 光盘
音效	– 5.1 声道高保真音频 (Realtek ALC662 音频编解码器)
板载 LAN 功能	– PCIE x1 Gigabit LAN 10/100/1000 Mb/s – Realtek RTL8111E – 支持网路唤醒 (Wake-On-LAN) – 支持网路线侦测功能 – 支持 Energy Efficient Ethernet 802.3az – 支持 PXE
Rear Panel (后面板输入 / 输出接口)	I/O 界面 – 1 个 PS/2 鼠标接口 – 1 个 PS/2 键盘接口 – 1 个 D-Sub 接口 – 1 个 DVI-D 接口 – 4 个可直接使用的 USB 2.0 接口

	– 2 个可直接使用的 USB 3.0 接口 – 1 个 RJ-45 局域网接口与 LED 指示灯 (ACT/LINK LED 和 SPEED LED) – 高保真音频插孔：音频输入 / 前置喇叭 / 麦克风
储存装置接口	– 6 x SATA3 6.0Gb/s 连接头，支持 RAID (RAID 0, RAID 1, RAID 5 和 RAID 10),NCQ,AHCI 和热插拔功能
连接头	– 1 x 打印机端口接针 – 1 x 串行接口 – 1 x 机箱开启警告功能接针 – 1 x CPU 风扇接头 (4 针) – 1 x 机箱风扇接头 (4 针) – 1 x 电源风扇接头 (3 针) – 1 x 24 针 ATX 电源接头 – 1 x 4 针 12V 电源接头 – 1 x 前置音频面板接头 – 2 x USB 2.0 接口 (可支持 4 个额外的 USB 2.0 接口) – 1 x USB 3.0 接针 (可支持 2 个额外的 USB 3.0 接口)
BIOS	– 64Mb AMI BIOS – AMI UEFI Legal BIOS, 支持 GUI – 支持即插即用 (Plug and Play,PnP) – ACPI 1.1 电源管理 – 支持唤醒功能 – 支持 Jumperfree 免跳线模式 – DRAM、VDDP、VDDR、SB 电压多功能调节器
支持光盘	– 驱动程序、工具软件、杀毒软件 (测试版本)、CyberLink MediaEspresso 6.5 试用版、Chrome 谷歌浏览器和工具栏
硬件监控器	– CPU 温度侦测 – 主板温度侦测 – CPU/ 机箱 / 电源风扇转速计 – CPU/ 机箱静音风扇 – CPU/ 机箱风扇多速控制 – 机箱开启侦测 – 电压范围：+12V, +5V, +3.3V, 核心电压
操作系统	– Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元适用于此主板
认证	– FCC, CE, WHQL – 支持 ErP/EuP(需要同时使用支持 ErP/EuP 的电源供应器)

* 请参阅华擎网站了解详细的产品信息：http://www.asrock.com

电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。

图一

有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注： 此产品所标示之环保使用年限，系指在一般正常使用状况下。

主機板規格

架構	- Micro ATX 規格 - 全固態電容設計
處理器	- FM2 插槽支援 100W 處理器 - 支援 AMD Cool 'n' Quiet 冷靜技術 - UMI-Link GEN2
晶片組	- AMD A85X (Hudson-D4)
系統記憶體	- 支援雙通道 DDR3 記憶體技術 - 2 個 DDR3 DIMM 插槽 - 支援 DDR3 1866/1600/1333/1066 non-ECC、un-buffered 記憶體 - 最高支援 32GB 系統容量 - 支援 Intel® Extreme Memory Profile(XMP)1.3/1.2 - 支援 AMD Memory Profile(AMP)
擴充插槽	- 1 x PCI Express 2.0 x16 插槽 (PCIE1: x16 模式) - 1 x PCI Express 2.0 x1 插槽 - 1 x PCI 插槽 - 支援 AMD 雙顯卡技術
內建顯示	- AMD Radeon HD 7000 顯示 - DirectX 11 顯示, Pixel Shader 5.0 技術 - 最大共享記憶體 2GB - 雙 VGA 輸出：透過獨立顯示控制器提供 DVI 和 D-Sub 接口 - 支援 Dual-link DVI, 最高解析度達 2560x1600 @ 75Hz - 支援 D-Sub, 最高解析度達 1920x1600 @ 60Hz - 支援 AMD Steady Video™ 2.0：最新影像後處理能力，可為家庭 / 線上影像提供自動降低手震的功能 - DVI 接口支援 HDCP 功能 - DVI 接口可播放 1080p 藍光光碟 (BD) / HD-DVD 光碟
音效	- 5.1 聲道高清晰音效 (Realtek ALC662 音效編解碼器)
網路功能	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - 支援網路喚醒 (Wake-On-LAN) - 支援網路線偵測功能 - 支援 Energy Efficient Ethernet 802.3az - 支援 PXE
Rear Panel (後背板輸入 / 輸出接口)	I/O 界面 - 1 個 PS/2 滑鼠接口 - 1 個 PS/2 鍵盤接口 - 1 個 D-Sub 接口 - 1 個 DVI-D 接口

	- 4 個可直接使用的 USB 2.0 接口 - 2 個可直接使用的 USB 3.0 接口 - 1 個 RJ-45 區域網接口與 LED 指示燈 (ACT/LINK LED 和 SPEED LED) - 高清晰音效插孔：音效輸入 / 前置喇叭 / 麥克風
儲存裝置介面	- 6 x SATA3 6.0Gb/s 接頭，支援 RAID (RAID 0, RAID 1, RAID 5 和 RAID 10), NCQ, AHCI 和熱插拔功能
接頭	- 1 x 印表機接針 - 1 x 序列埠 - 1 x 機殼開啟警告功能接頭 - 1 x CPU 風扇接頭 (4 針) - 1 x 機箱風扇接頭 (4 針) - 1 x 電源風扇接頭 (3 針) - 1 x 24 針 ATX 電源接頭 - 1 x 4 針 12V 電源接頭 - 1 x 前置音效接頭 - 2 x USB 2.0 接頭 (可支援 4 個額外的 USB 2.0 接口) - 1 x USB 3.0 接頭 (可支援 2 個額外的 USB 3.0 接口)
BIOS	- 64Mb AMI BIOS - AMI UEFI Legal BIOS (支援 GUI) - 支援即插即用 (Plug and Play,PnP) - ACPI 1.1 電源管理 - 支援喚醒功能 - 支援 jumperfree 免跳線模式 - DRAM、VDDP、VDDR、SB 電壓多功能調節
支援光碟	- 驅動程式、工具軟體、防毒軟體 (試用版本)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser 和 Toolbar
硬體監控	- CPU 溫度偵測 - 主機板溫度偵測 - CPU/ 機箱 / 電源風扇轉速計 - CPU/ 機箱靜音風扇 - CPU/ 機箱風扇多速控制 - 機殼開啟偵測 - 電壓範圍：+12V, +5V, +3.3V, 核心電壓
操作系統	- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元

認證	- FCC, CE, WHQL - 支援 ErP/EuP(需要同時使用支援 ErP/EuP 的電源供應器)

* 請參閱華擎網站了解詳細的產品訊息：http://www.asrock.com

Spesifikasi

Podium	- Faktor Form Mikro ATX - Desain All Solid Capacitor
CPU	- Menggunakan Stopkontak FM2 100W processor - Dapat digunakan AM's Cool 'n' Quiet™ Technology - UMI-Link GEN2
Grup Chip	- AMD A85X (Hudson-D4)
Ingatan	- Teknologi ingatan DDR3 dwisaluran - 2 x Alur DDR3 DIMM - Menggunakan1866/1600/1333/1066 - Kapasitas paling banyak: 32GB - Mendukung Intel® Extreme Memory Profile (XMP)1.3/1.2 - Mendukung AMD Memory Profile (AMP)
Alur Ekspansi	- 1 x PCI Express 2.0 x16 slot (PCIE1: x16 mode) - 1 x PCI Express 2.0 x1 slot - 1 x PCI slot - Mendukung AMD Dual Graphics
Diagram	- AMD Radeon HD 7000 Graphics - DirectX 11, Pixel Shader 5.0 - Ingatan sama Max. 2GB - Output VGA Ganda: mendukung port DVI dan D-Sub melalui pengontrol tampilan independen - Mendukung Dual-link DVI dengan resolusi maksimal hingga 2560x1600 @ 75Hz - Mendukung D-Sub dengan resolusi maksimal hingga 1920x1600 @ 60Hz - Mendukung AMD Video™ 2.0 Tenang: Baru video pasca kemampuan pengolahan untuk pengurangan jutter otomatis pada rumah / online video - Mendukung fungsi HDCP dengan port DVI - Mendukung pemutaran 1080p Blu-ray (BD) / HD-DVD dengan port DVI
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Menggunakan Wake-On-LAN - Mendukung Deteksi Kabel LAN - Mendukung Energy Efficient Ethernet 802.3az - Mendukung PXE

Papan Belakang I/O	I/O Panel - 1 x Port Mouse PS/2 - 1 x Port Keyboard PS/2 - 1 x Port D-Sub - 1 x Port DVI-D - 4 x Port USB 2.0 siap-dipakai - 2 x Port USB 3.0 siap-dipakai - 1 x RJ-45 LAN Port LED (ACT/LINK LED dan SPEED LED) - HD Audio Jack: Line in/Penyuara Depan/mikropon
Antarmuka Penyimpanan	- 6 x penghubung SATA3 6.0Gb/s, dapat digunakan RAID (RAID 0, RAID 1, RAID 5 dan RAID 10), NCQ, AHCI dan fungsi fungsi “Hot Plug”
Penghubung	- 1 x port header Print - 1 x port header COM - 1 x Chassis Intrusion header - 1 x Penghubung KIPAS CPU (4 pin) - 1 x Penghubung KIPAS casis (4 pin) - 1 x Penghubung KIPAS Power (3 pin) - 1 x Penghubung power 24 pin ATX - 1 x Penghubung power 4 pin 12V - 1 x Penghubung audio panel dapan - 2 x USB 2.0 header (menggunakan 4 port USB 2.0) - 1 x USB 3.0 header (menggunakan 2 port USB 3.0)
Ciri-ciri BIOS	- 64Mb AMI Legal BIOS - AMI UEFI Legal BIOS dengan dukungan GUI - Menggunakan “Plug and Play” - ACPI 1.1 Compliance Wake Up Events - Menggunakan jumperfree - Penyokong AMBIOS 2.3.1 - Penyesuaian berbagai tegangan DRAM, VDDP, VDDR, SB
Sokongan CD	- Penggerak, kegunaan, Software AntiVirus (Versi Cobaan), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser dan Toolbar
Penjaga Hardware	- Perasa Suhu CPU - Perasa Suhu Casis - Pengukur Kipas CPU/casis/Power - Kipas diam CPU/casis - Kipas diam CPU/casis - Kontrol Multi-Kecepatan Kipas CPU/casis - Deteksi CASING TERBUKA - Penjagaan voltasi: +12V, +5V, +3.3V, Vcore

OS	- dapat digunakan Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit
Sertifikasi	- FCC, CE, WHQL - ErP/EuP Ready (memerlukan catu daya ErP/EuP ready)

* Untuk informasi rinci, silakan kunjungi website kami: http://www.asrock.com

Installing OS on a HDD Larger Than 2TB

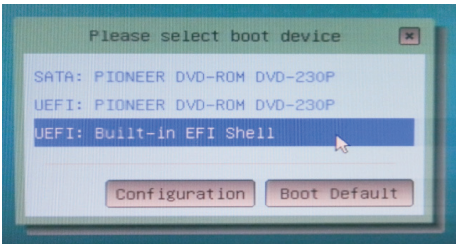
This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above)**, **Windows® 7 64-bit** or **Windows® 8 64-bit**.
2. Press <F2> or <Delete> at system POST. Set **AHCI Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose the item **"UEFI:xxx"** to boot in UEFI Setup Utility > Boot > Boot Option #1. ("xxx" is the device which contains your Windows® installation files. Normally it is an optical drive.) You can also press <F11> to launch boot menu at system POST and choose the item **"UEFI:xxx"** to boot.
4. Start Windows® installation.

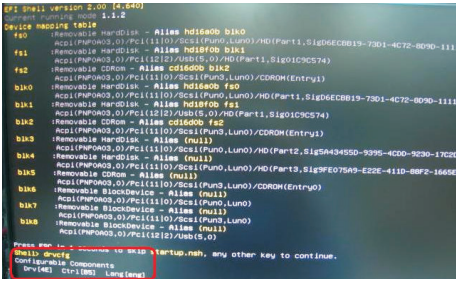
Installing OS on a HDD Larger Than 2TB in RAID Mode

This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

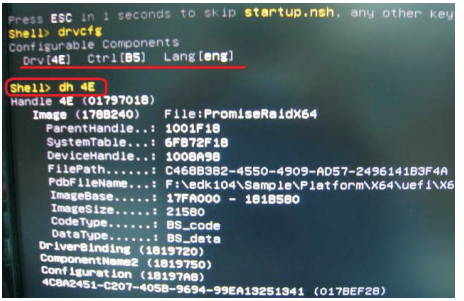
1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above)**, **Windows® 7 64-bit** or **Windows® 8 64-bit**.
2. Press <F2> or <Delete> at system POST. Set **RAID Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose **onboard RAID 3TB+ unlocker** > **UEFI Mode For GPT partition**. Press <F10> to save the change and exit.
4. Press <F11> to enter Boot Manual. Choose **UEFI : Built - in EFI Shell**.



5. Key in **drvcfg**, for example you will see below:
   Drv[4E] Ctrl[B5] Lang[eng]



6. Key in **dh [Drv number]**, for example: key in **dh 4E**.



Installing OS on a HDD Larger Than 2TB

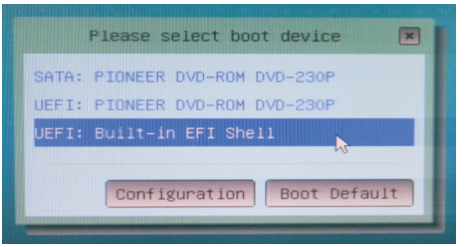
This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above)**, **Windows® 7 64-bit** or **Windows® 8 64-bit**.
2. Press <F2> or <Delete> at system POST. Set **AHCI Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose the item **"UEFI:xxx"** to boot in UEFI Setup Utility > Boot > Boot Option #1. ("xxx" is the device which contains your Windows® installation files. Normally it is an optical drive.) You can also press <F11> to launch boot menu at system POST and choose the item **"UEFI:xxx"** to boot.
4. Start Windows® installation.

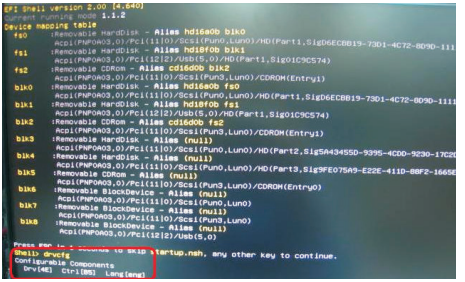
Installing OS on a HDD Larger Than 2TB in RAID Mode

This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

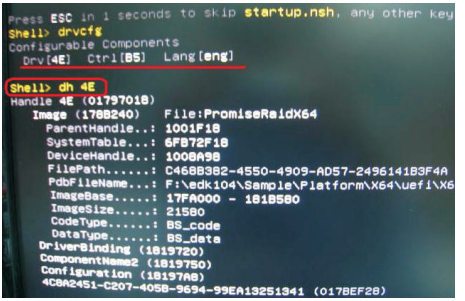
1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above)**, **Windows® 7 64-bit** or **Windows® 8 64-bit**.
2. Press <F2> or <Delete> at system POST. Set **RAID Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose **onboard RAID 3TB+ unlocker** > **UEFI Mode For GPT partition**. Press <F10> to save the change and exit.
4. Press <F11> to enter Boot Manual. Choose **UEFI : Built - in EFI Shell**.



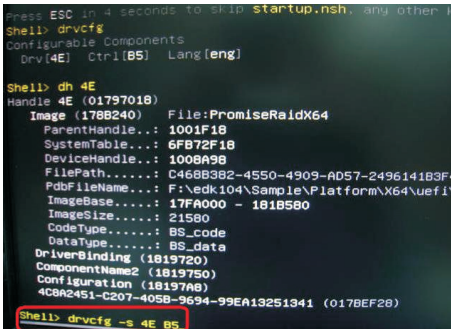
5. Key in **drvcfg**, for example you will see below:
   Drv[4E] Ctrl[B5] Lang[eng]



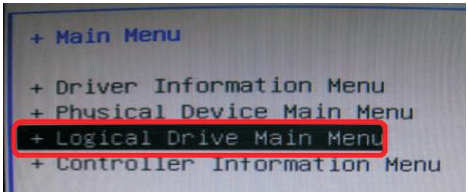
6. Key in **dh [Drv number]**, for example: key in **dh 4E**.



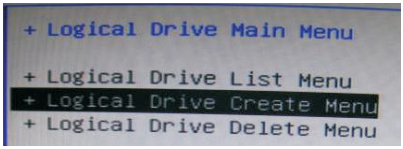
7. And then key in **drvcfg –s [Drv number] [Ctrl number]** to enter Raid Utility.
   For example: key in **drvcfg –s 4E B5**.



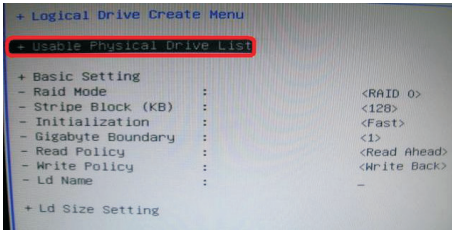
8. Choose **Logical Drive Main Menu** to set up Raid Drive.



9. Choose **Logical Drive Create Menu** to create a Raid Drive.

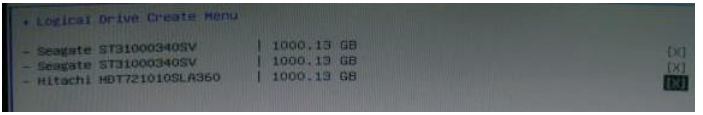


10. Choose **Usable Physical Drive List** to select Raid HDD.

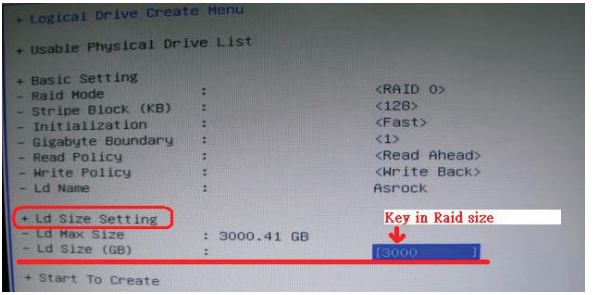


English

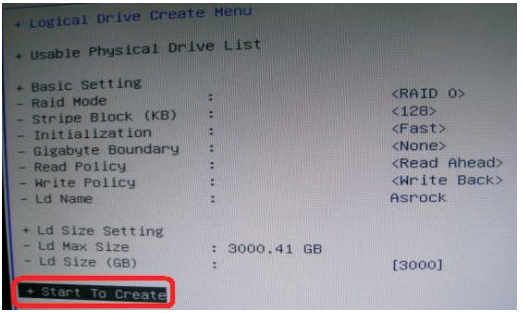
11. Press **Space** on keyboard to toggle checkbox.



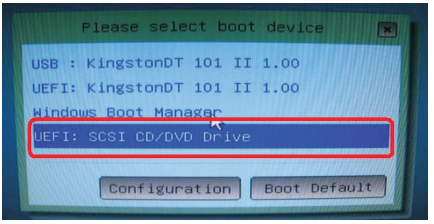
12. Choose **Ld Size setting**, and key in the Raid size.



13. After set up Raid size, please click **Start to Create**.



14. Press <F10> to exit Utility.
15. During reboot, please press <F11> to enter Boot Manual. Choose **UEFI: SCSI CD/DVD Drive**.



* This option only shows on Windows® 8 64-bit, 7 64-bit and Vista™ 64-bit OS.

English

16. Follow Windows® Installation Guide to install OS.

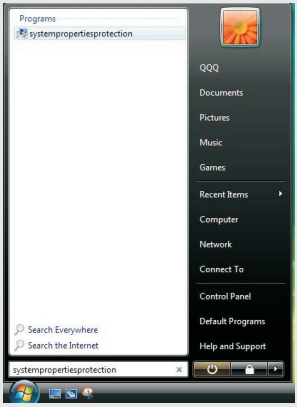
If you install Windows® 8 64-bit / 7 64-bit / Vista™ 64-bit in a large hard disk (ex. Disk volume > 2TB), it may take more time to boot into Windows® or install driver/utilities. If you encounter this problem, you will need to following instructions to fix this problem.

Windows® Vista™ 64-bit:

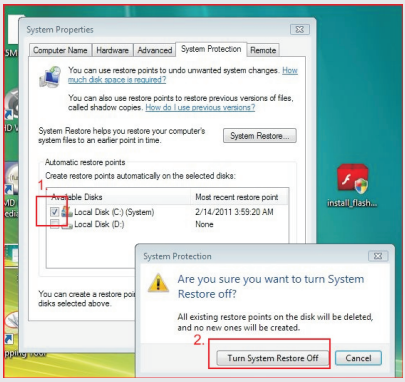
Microsoft® does not provide hotfix for this problem. Below steps are Microsoft® suggested solution:

A. Disable System Restore.

a. Type “systempropertiesprotection” in the Start Menu. Then press "Enter".



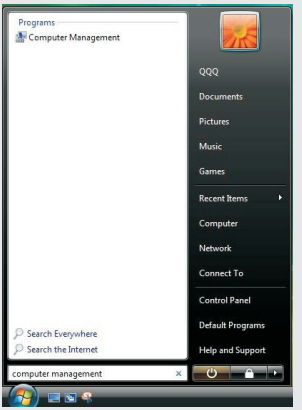
b. De-select Local Disks for System Restore. Then Click “Turn System Restore Off” to confirm. Then Press “Ok”.


System Properties
Computer Name
Hardware
Advanced
System Protection
Remote
You can use restore points to undo unwanted system changes. How much disk space is required?
You can also use restore points to restore previous versions of files, called shadow copies. How do I use previous versions?
System Restore helps you restore your computer's system files to an earlier point in time.
System Restore...
Automatic restore points
Create restore points automatically on the selected disks:
1.
Available Disks
Most recent restore point
Local Disk (C:) (System)
2/14/2011 3:59:20 AM
Local Disk (D:)
None
System Protection
Are you sure you want to turn System Restore off?
All existing restore points on the disk will be deleted, and no new ones will be created.
2.
Turn System Restore Off
Cancel
install_flash...

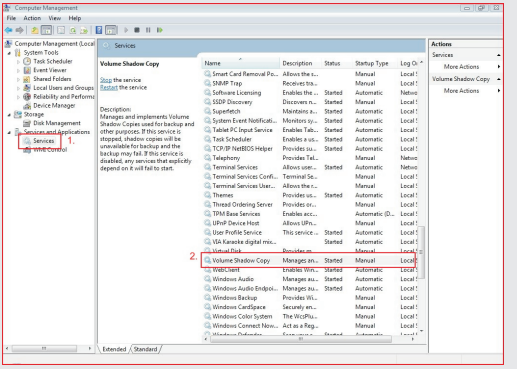
English

B. Disable “Volume Shadow Copy” service.

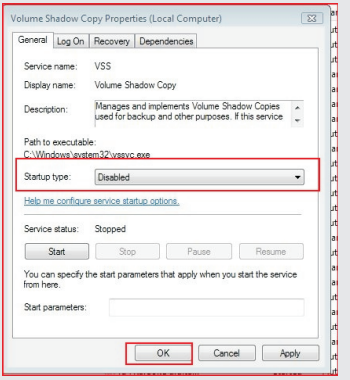
a. Type “computer management” in the Start Menu, then press “Enter”.



b. Go to “Services and Applications>Services”; Then double click “Volume Shadow Copy”.



c. Set “Startup type” to “Disable” then Click “OK”.



English

C. Reboot your system.
D. After reboot, please start to install motherboard drivers and utilities.

Windows® 8 64-bit / 7 64-bit:
A. Please request the hotfix KB2505454 thru this link:
http://support.microsoft.com/kb/2505454/
B. After installing Windows® 8 64-bit / 7 64-bit, install the hotfix kb2505454.
(This may take long time; >30 mins.)
C. Reboot your system. (It may take about 5 mins to boot.)
D. The Windows® will install this hotfix then reboot by itself.
E. Please start to install motherboard drivers and utilities.

17. Finish.